



# GC/MS Semivolatiles

## Case Narrative

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### **Boston Chemical Corp**

#### **Gulf Coast**

Work Order Number: 1008161

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 08/13/10.
2. The sample was prepared and analyzed according to SW-846, 3rd Edition procedures. The samples were not extracted, but were direct injected on the GC/MS after the addition of internal standard.
3. The extracts were analyzed using GC/MS with a DB-5.625 capillary column according to SOP 506 Revision 16 based on SW-846 Method 8270D. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and mass spectrum of the sample versus the daily calibration standard.

The extracts were analyzed using GC/MS with a Carbowax capillary column according to SOP 506 Revision 16 based on SW-846 Method 8270D. The samples were analyzed using selective ion monitoring (SIM), in order to achieve lower reporting limits. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and a limited number of major ions from the mass spectrum of the sample versus the daily calibration standard.

4. All initial calibration criteria for were met. If average response factors were used in the initial calibration, %RSD was  $\leq 15\%$ . If linear or higher order regression calibrations were used in the initial calibration, the coefficient of determination ( $r^2$ )  $\geq 0.99$ .
5. All initial calibration standards are verified by comparing a second source standard initial calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D of less than 25%.



6. All method blank criteria were met.
7. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria.
8. The sample was extracted and analyzed within the established holding time.
9. Due to the matrix and analysis method there are no criteria for the internal standard used for this analysis.
10. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 3. The chromatographic data system marks the manual integrations with an m on the quantitation report. Whenever manual integrations are performed, before and after chromatograms of the peak that was manually integrated are included in the report along with the reason why the re-integration was necessary.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Sey  
Sharon L. Jobes  
Organics Primary Data Reviewer

8-24-10  
Date

Joe Kristmundson  
Organics Final Data Reviewer

August 24, 2010  
Date



**ALS**  
**Data Qualifier Flags**  
**Chromatography and Mass Spectrometry**

- U or ND:** This flag indicates that the compound was analyzed for but not detected.
- J:** This flag indicates an estimated value. This flag is used as follows: (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the retention time data indicate the presence of a compound that meets the GC identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.
- B:** This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.
- E:** This flag identifies compounds whose concentration exceeds the upper level of the calibration range.
- A:** This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.
- X:** This flag indicates that the analyte was diluted below an accurate quantitation level.
- \*:** This flag indicates that a spike recovery is equal to or outside the control criteria used.
- +:** This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

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**Paragon OrderNum:** 1008161

**Client Name:** Boston Chemical Corp

**Client Project Name:** Gulf Coast

**Client Project Number:**

**Client PO Number:**

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
DWH 151 W	1008161-1		WATER	10-Aug-10	6:35

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Burlington, ON #5 - 5420 Mainway Drive, L7L 6A4 Tel: 905-331-3111 Toll Free: 1-888-257-3884 Fax: 905-331-4557  
Waterloo, ON #1 - 90 Northland Road, N2V 2B5 Toll Free: 1-800-888-9678 Fax: 519-886-9047  
Ottawa, ON #13 - 210 Colonnade Road, K2E 7L8 Tel: 613-731-1008 Fax: 613-738-1107

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## CHAIN OF CUSTODY FORM

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**SEND REPORT TO:**[illegible]



## CONDITION OF SAMPLE UPON RECEIPT FORM

Client: ALC BurlingtonWorkorder No: 1008161Project Manager: JKInitials: CR Date: 8-13-10

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	NO	
2. Are custody seals on shipping containers intact?	NONE	YES	NO	
3. Are Custody seals on sample containers intact?	NONE	YES	NO	
4. Is there a COC (Chain-of-Custody) present or other representative documents?		YES	NO	
5. Are the COC and bottle labels complete and legible?		YES	NO	
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		YES	NO	
7. Were airbills / shipping documents present and/or removable?	DROP OFF	YES	NO	
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	NO	
9. Are all aqueous non-preserved samples pH 4-9?	N/A	YES	NO	
10. Is there sufficient sample for the requested analyses?		YES	NO	
11. Were all samples placed in the proper containers for the requested analyses?		YES	NO	
12. Are all samples within holding times for the requested analyses?		YES	NO	
13. Were all sample containers received intact? (not broken or leaking, etc.)		YES	NO	
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u>      </u> < green pea <u>      </u> > green pea	N/A	YES	NO	
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	N/A	YES	NO	
16. Were samples checked for and free from the presence of residual chlorine? (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	N/A	YES	NO	
17. Were the samples shipped on ice?		YES	NO	
18. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #2 #4	RAD ONLY	YES	NO
Cooler #: <u>1</u>				
Temperature (°C): <u>5.4</u>				
No. of custody seals on cooler: <u>0</u>				
External µR/hr reading: <u>12</u>				
Background µR/hr reading: <u>11</u>				
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)				

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16

If applicable, was the client contacted? YES / NO / NA Contact: H. Kallafon Date/Time: 8/12/10Project Manager Signature / Date: [Signature] 8/17/10

\*IR Gun #2: Oakton, SN 29922500201-0066

\*IR Gun #4: Oakton, SN 2372220101-0002

From: Origin ID: YATA (905) 331-3111  
 Brandon Gingrich  
 ALS Environmental  
 5420 Mainway Drive unit 5



J18291805250325

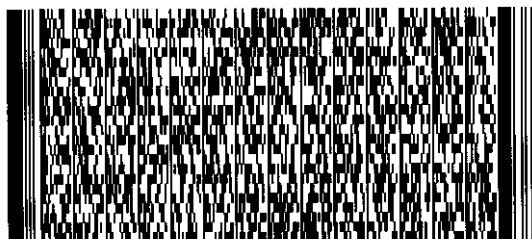
Burlington, ON L7L6A4  
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Jeff Kujawa  
 ALS Environmental  
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# GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1008161

Client Name: Boston Chemical Corp

ClientProject ID: Gulf Coast

Lab ID: SV100818-1MB

Sample Matrix: LIQUID

% Moisture: N/A

Date Collected: N/A

Date Extracted: 18-Aug-10

Date Analyzed: 18-Aug-10

Prep Method: NONE

Prep Batch: SV100818-1

QCBatchID: SV100818-1-1

Run ID: SV100818-2

Cleanup: NONE

Basis: N/A

File Name: P10816

Sample Aliquot: 1 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
57-55-6	PROPYLENE GLYCOL	1	500	500	U	

Data Package ID: SV1008161-1

Date Printed: Tuesday, August 24, 2010

ALS Environmental -- FC

LIMS Version: 6.393A

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# GC/MS Semi-volatiles

Method SW8270D

## Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1008161

Client Name: Boston Chemical Corp

ClientProject ID: Gulf Coast

Field ID:	DWH 151 W
Lab ID:	1008161-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 10-Aug-10

Date Extracted: 18-Aug-10

Date Analyzed: 18-Aug-10

Prep Method: NONE

Prep Batch: SV100818-1

QCBatchID: SV100818-1-1

Run ID: SV100818-2

Cleanup: NONE

Basis: As Received

File Name: P10822

Sample Aliquot: 1 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
57-55-6	PROPYLENE GLYCOL	1	790	500		

Data Package ID: SV1008161-1

Date Printed: Tuesday, August 24, 2010

ALS Environmental -- FC

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# GC/MS Semi-volatiles

## Method SW8270D

### Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1008161

Client Name: Boston Chemical Corp

ClientProject ID: Gulf Coast

Lab ID: SV100818-1LCS

Sample Matrix: LIQUID

% Moisture: N/A

Date Collected: N/A

Date Extracted: 08/18/2010

Date Analyzed: 08/18/2010

Prep Method: NONE

Prep Batch: SV100818-1

QCBatchID: SV100818-1-1

Run ID: SV100818-2

Cleanup: NONE

Basis: N/A

File Name: P10814

Sample Aliquot: 1 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
57-55-6	PROPYLENE GLYCOL	15000	15500	500		103	70 - 130%

Lab ID: SV100818-1LCSD

Sample Matrix: LIQUID

% Moisture: N/A

Date Collected: N/A

Date Extracted: 08/18/2010

Date Analyzed: 08/18/2010

Prep Method: NONE

Prep Batch: SV100818-1

QCBatchID: SV100818-1-1

Run ID: SV100818-2

Cleanup: NONE

Basis: N/A

File Name: P10815

Sample Aliquot: 1 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
57-55-6	PROPYLENE GLYCOL	15000	14600	500		97	20	6

Data Package ID: SV1008161-1

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